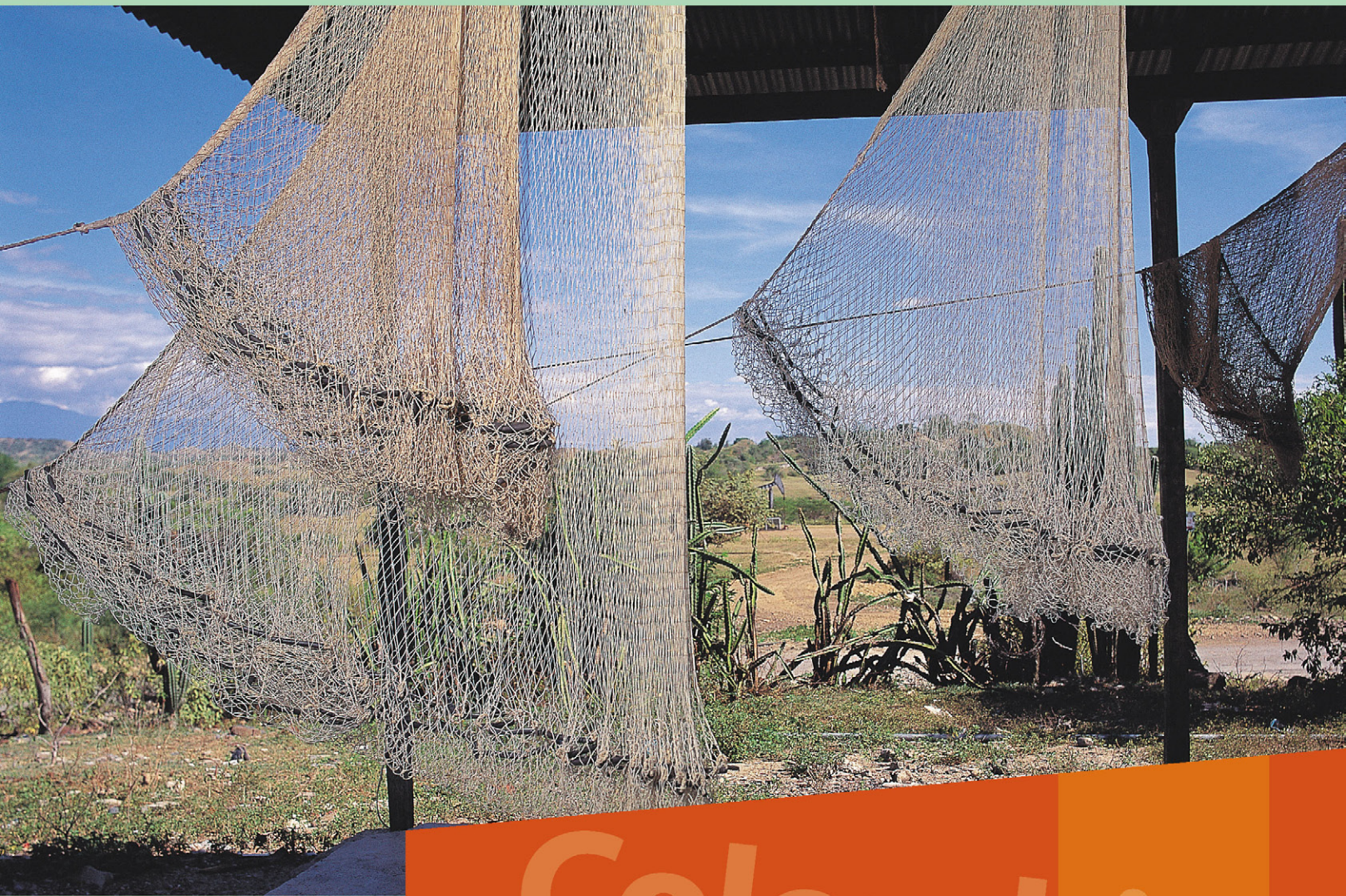


SINU-SAN JACINTO BASIN



Abundant
Oil Seeps...
Untapped
Oil Traps

Colombia
2005
2006

Petroleum System

The Sinu-San Jacinto Fold Belt was formed as an accretionary prism along the South American continental margin, due to subduction of the Caribbean Plate. The San Jacinto Fold Belt was developed in the Eocene and consists mainly of sedimentary rocks and some volcanic rocks from the Caribbean Plate. The Sinu belt is younger and consists mainly of sedimentary deposits along the Northwestern margin of Colombia and incorporated later in the accretionary prism during the Miocene and the most modern subduction.

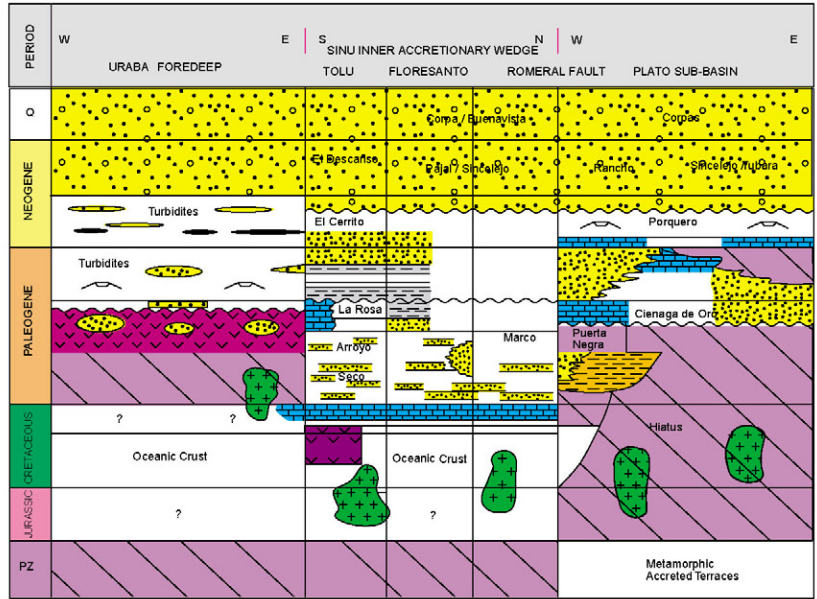
Sources: Hydrocarbon generation began in the Miocene, but some earlier generation could have occurred in the Cretaceous (Cansona Formation). The enormous amount of oil seeps is evidence of hydrocarbon generation in the region.

The Cansona Formation favours for the generation of liquid hydrocarbons, it consists mainly of organic rich Kerogen Types I - II. The Porquero and Floresanto formations and the muddy facies from Cienaga de Oro formation frequently show a Gas Prone behavior with Type II, III and IV Kerogen.

Reservoirs: The main potential reservoirs were deposited between the Eocene-Miocene. These deposit vary from continental fluvial-deltaic to marine and included carbonate deposits from shallow water.

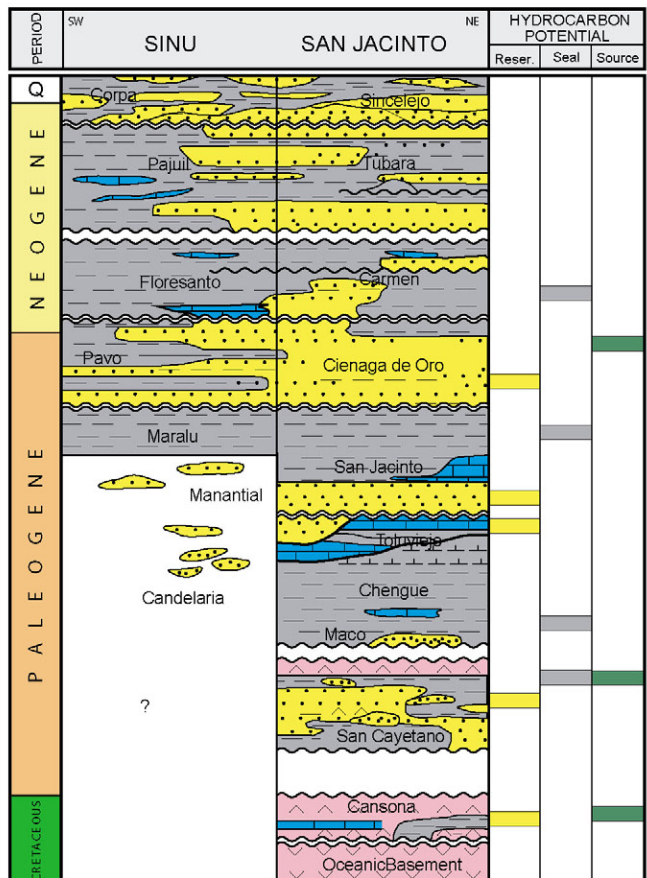
Seals: Overlapping sealing units are present in the entire. The seals (fine granular units) are associated with translapping or migration of facies changing from marine to continental environments.

Chronostratigraphic Chart



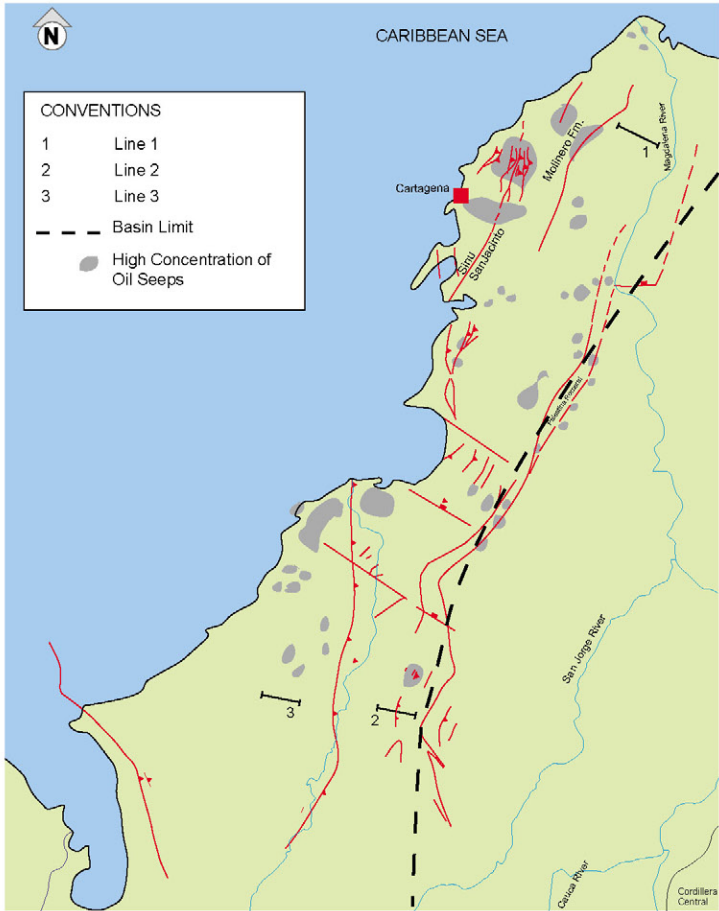
From Ilex, 1995

Petroleum System Chart



From Ilex, 1995

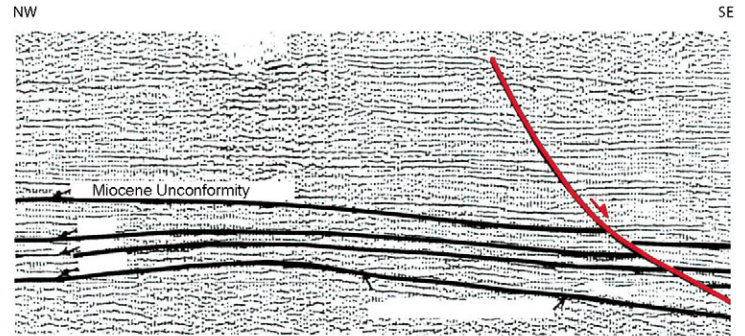
Oil Seeps



Modified from ILEX, 1995

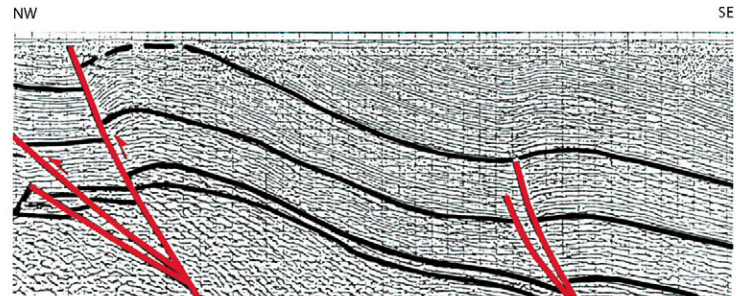
Seismic Expression

Line 1.
STRATIGRAPHIC TRAP (SUBMARINE FAN)



From ILEX, 1995

Line 2.
STRUCTURAL TRAP (HIGH SIDE CLOSURES)



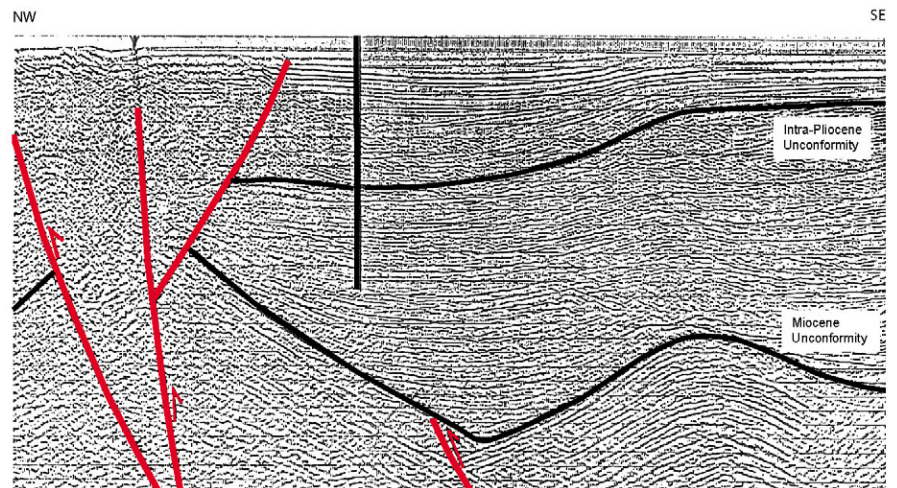
From ILEX, 1995

Plays (Traps): It is possible to identify different kind of plays with big exploratory potential: stratigraphic traps at the north of San Jacinto fold belt and structural plays in thrust-related closures.

Prospectivity

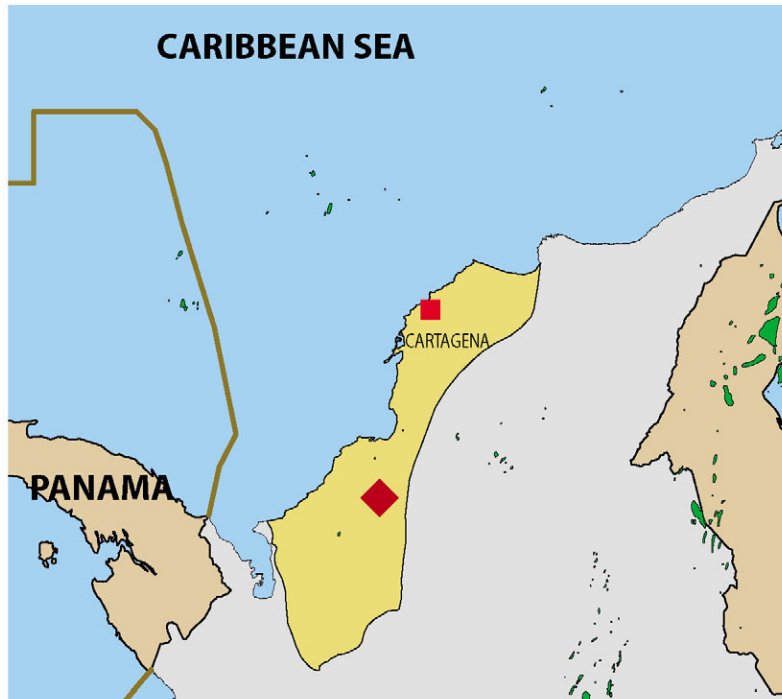
Abundant oil and gas shows, good clastic and carbonate potential reservoirs together with strong structuration indicate high prospectivity. A likely analog example is the Soldado field in Trinidad.

Line 3.
STRUCTURAL TRAP (ANTICLINE UNDER SYNCLINE ASSOCIATED WITH THRUSTING)

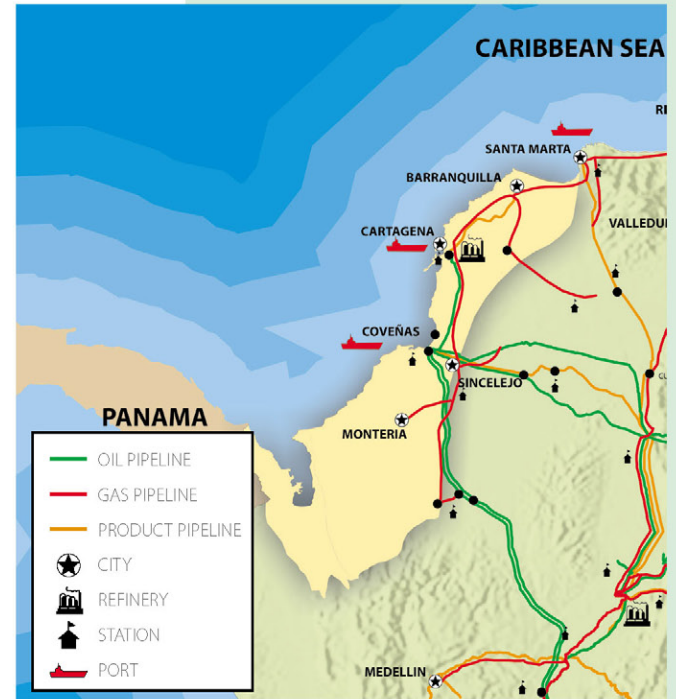


From ILEX, 1995

Basin Location



Infrastructure



HIGHLIGHTS

◆ ANH Projects	700 km Seismic 2D Lines Sequence stratigraphy analysis Petrography/Petrophysics/Geochemistry
Area	38,500 km² (Onshore) 9,500,000 acres
Discovered Reserves	None
Oil field Discoveries	None
Exploratory wells	44
Seismic Coverage	38,500 km² 871 km² / well

Produced by
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Juan Fernando Martínez, Oliverio Rojas, Edwin Valencia
and Mercedes Álvarez

Petroleum Engineer: Yolanda Ojeda

Design
Mantís Estudio

Cover Picture
Ecopetrol S.A.



Agencia Nacional de Hidrocarburos
República de Colombia

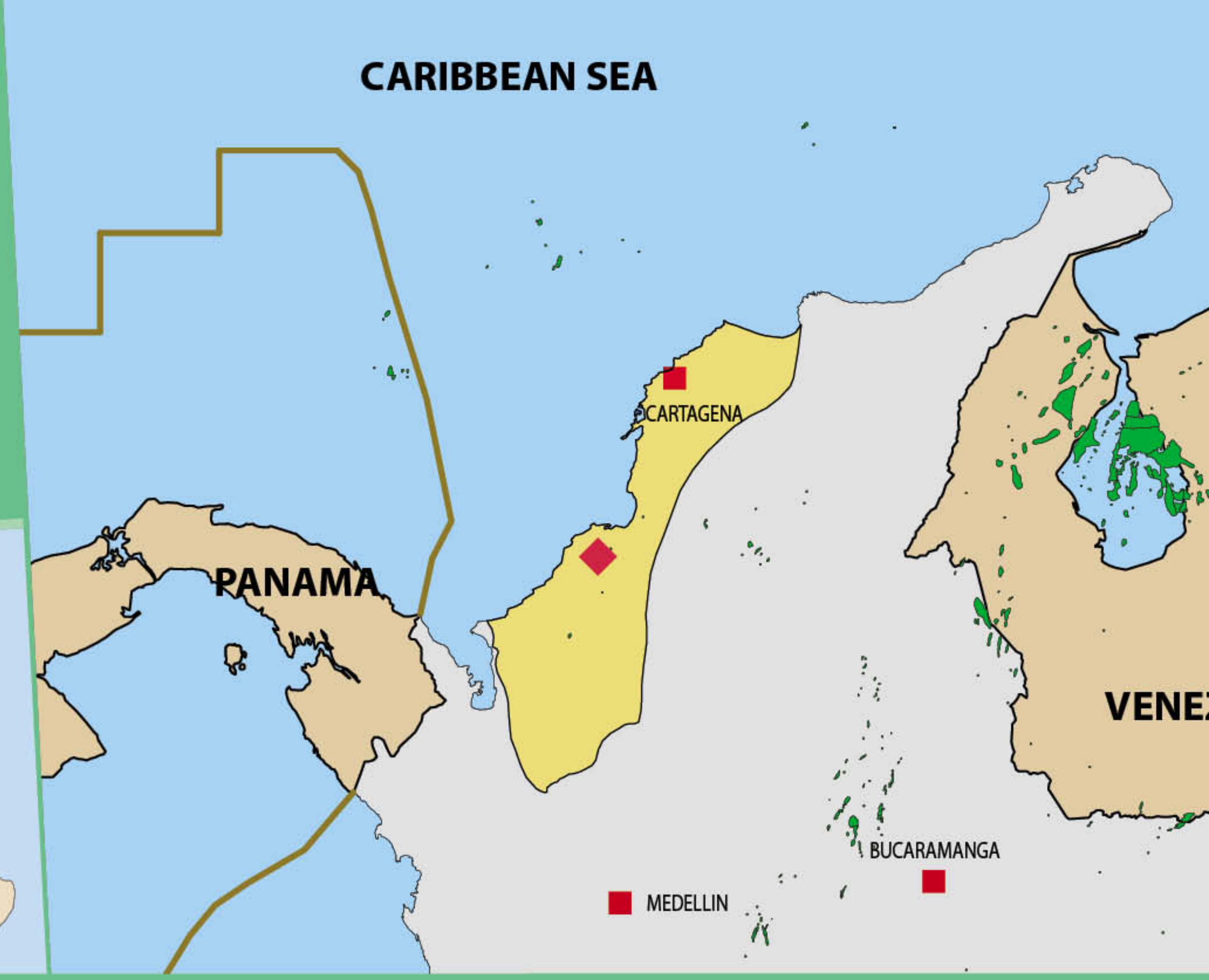
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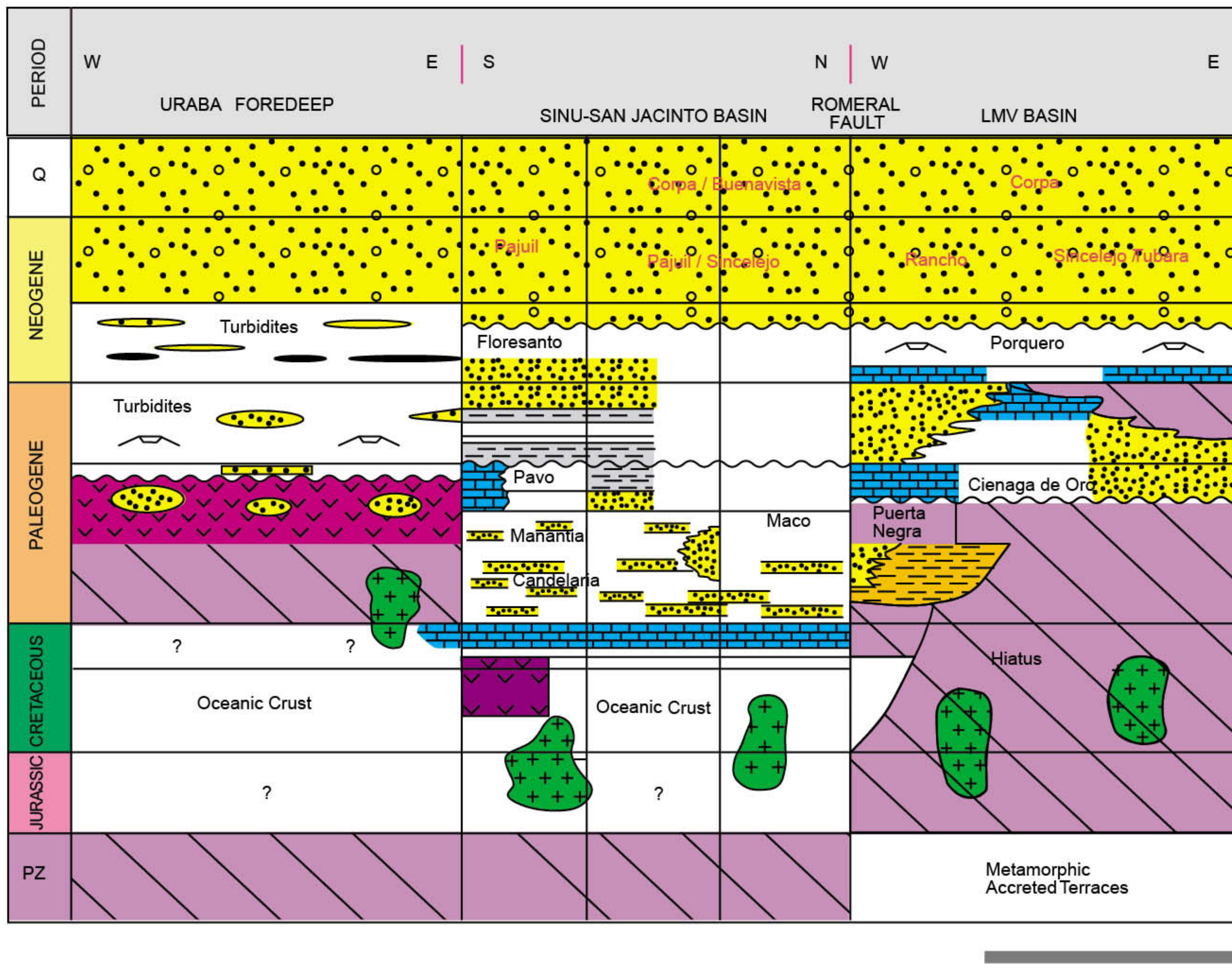


Sinu-San Jacinto Basin

Accretionary prism basin



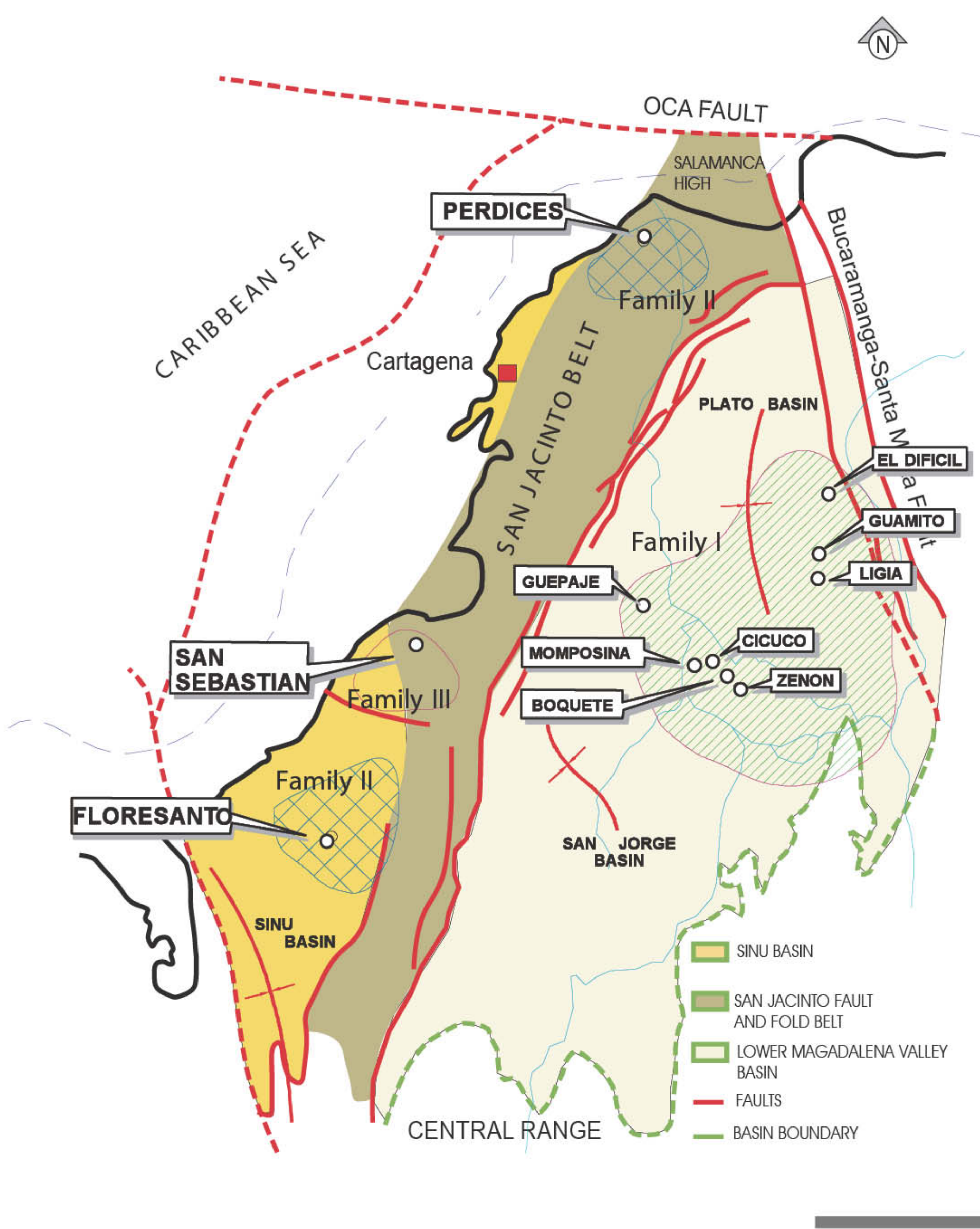
Chronostratigraphic Chart



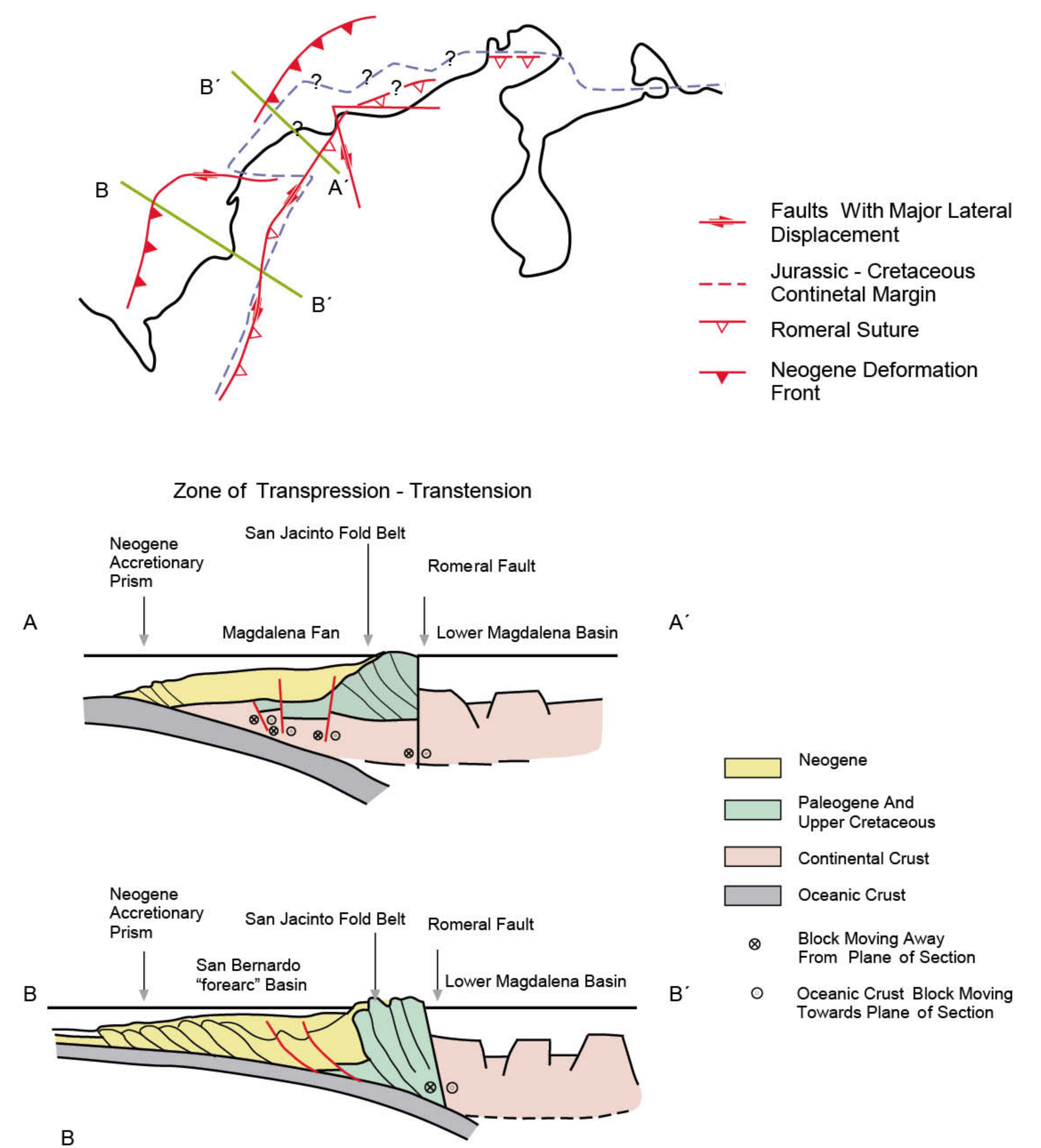
Highlights

- ◆ ANH Projects | **700 km 2D Seismic Lines**
- Sequence stratigraphy analysis**
- Petrography/Petrophysics/Geochemistry**
- Area | **38,500 km² (Onshore)**
9,500,000 acres
- Discovered Reserves | **None**
- Oil field Discoveries | **None**
- Exploratory wells | **44**
- Seismic | **38,500 km**
- Coverage | **871 km² / well**

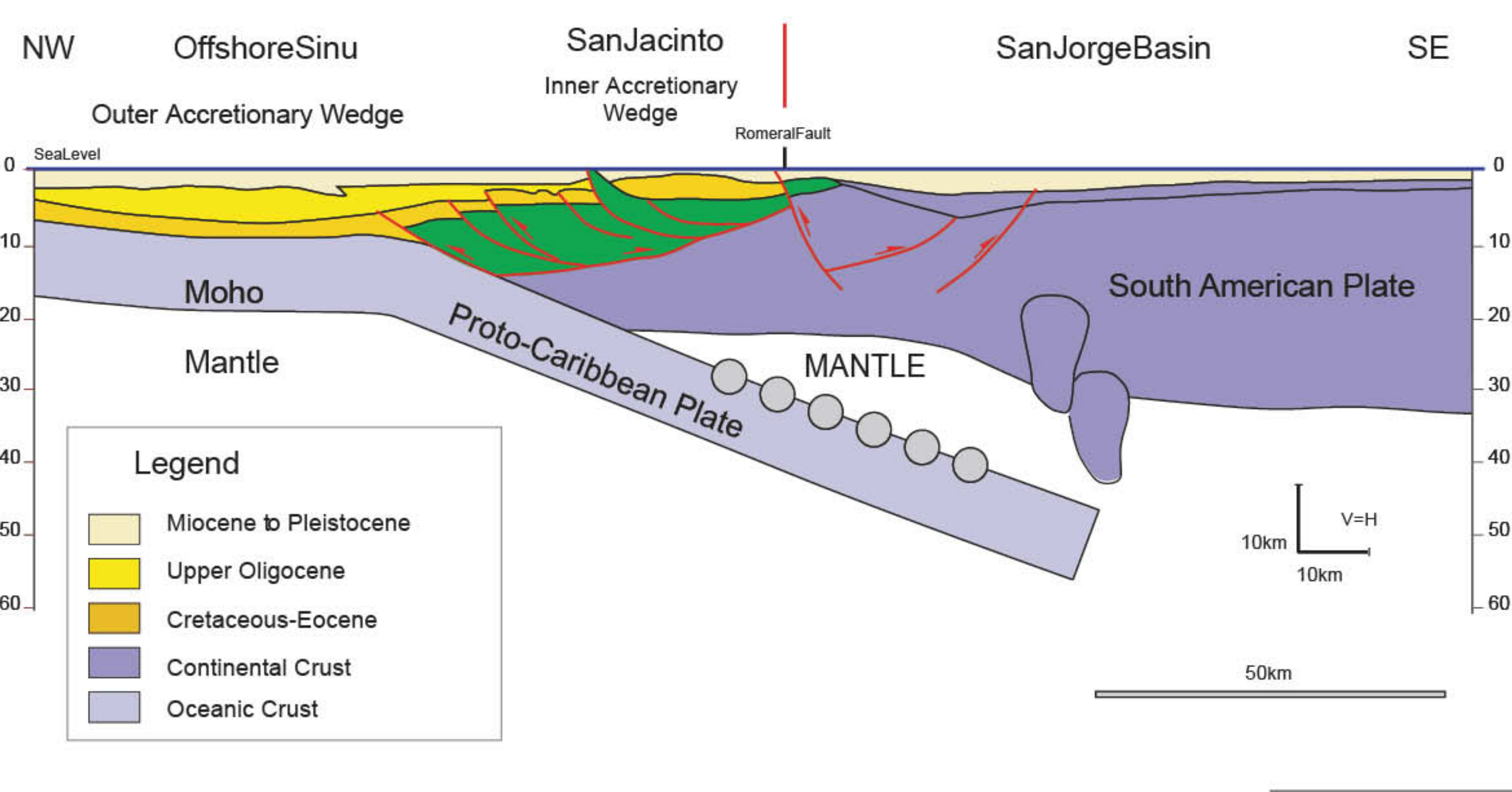
Oil Families



Conceptual Tectonic Model



Schematic Cross Section



SINU FOLD BELT - THRUST BELT



Agencia Nacional de Hidrocarburos
República de Colombia

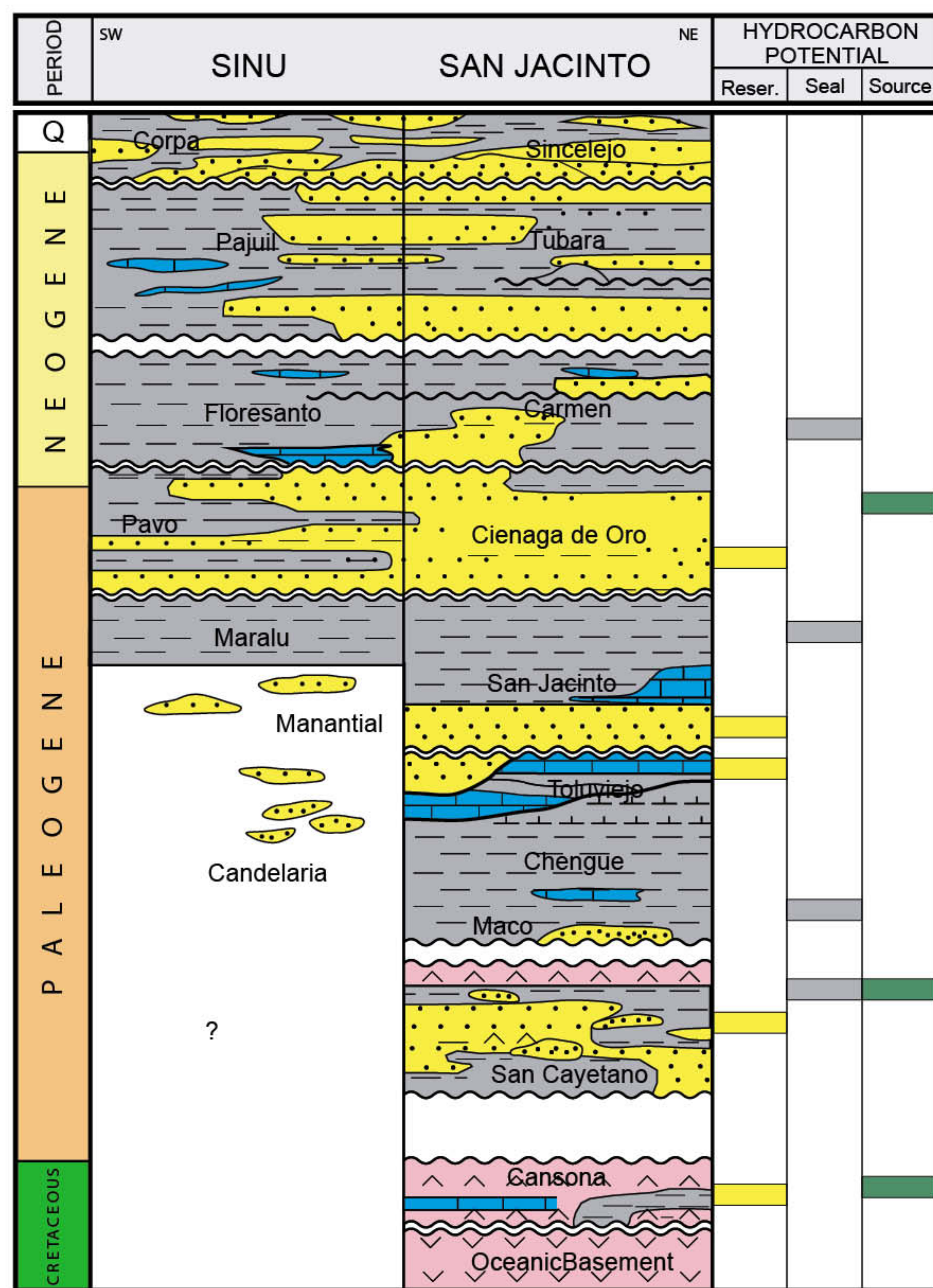
Libertad y Orden

Colombia
2005

Sinu-San Jacinto Basin

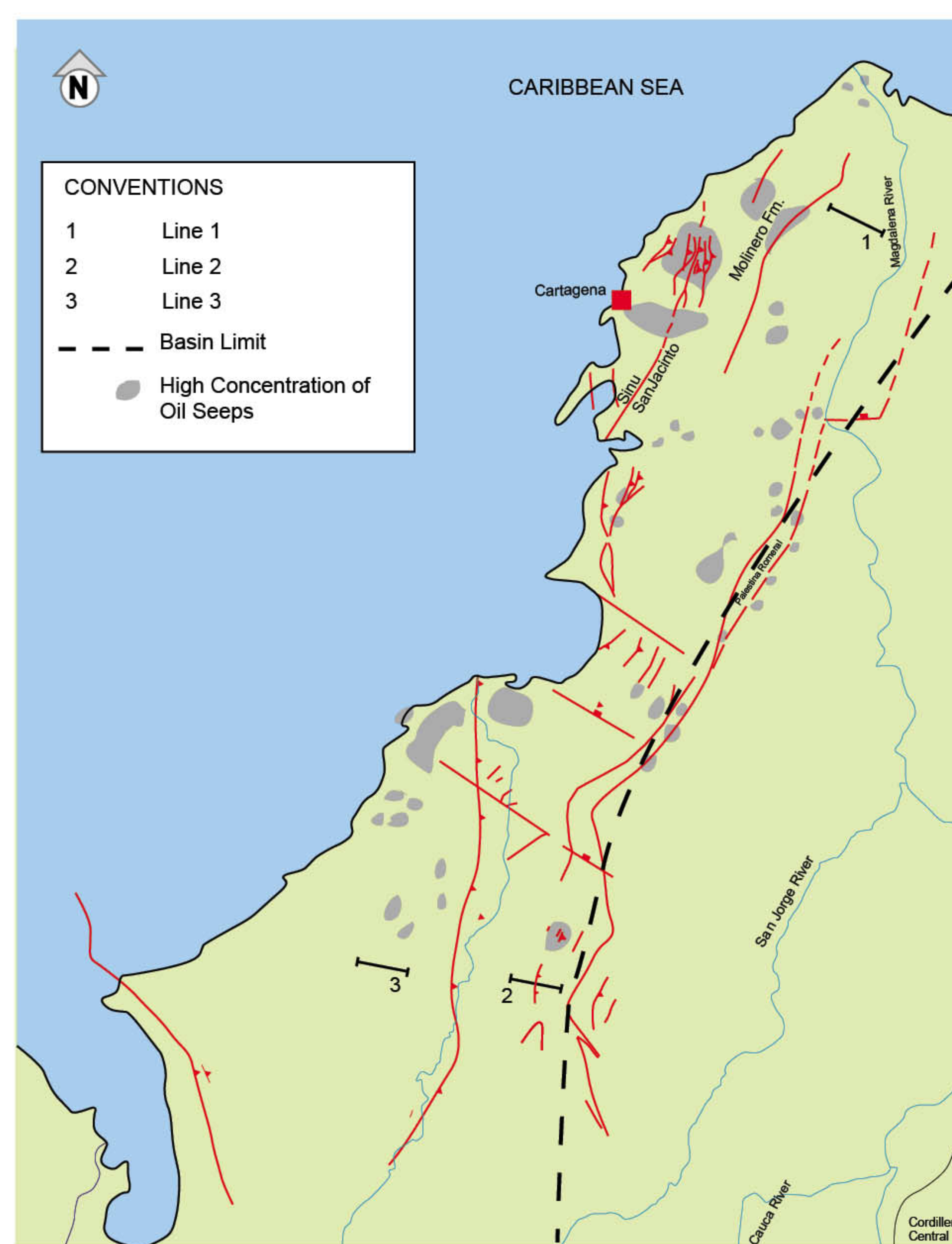
Accretionary prism basin

Petroleum System Chart



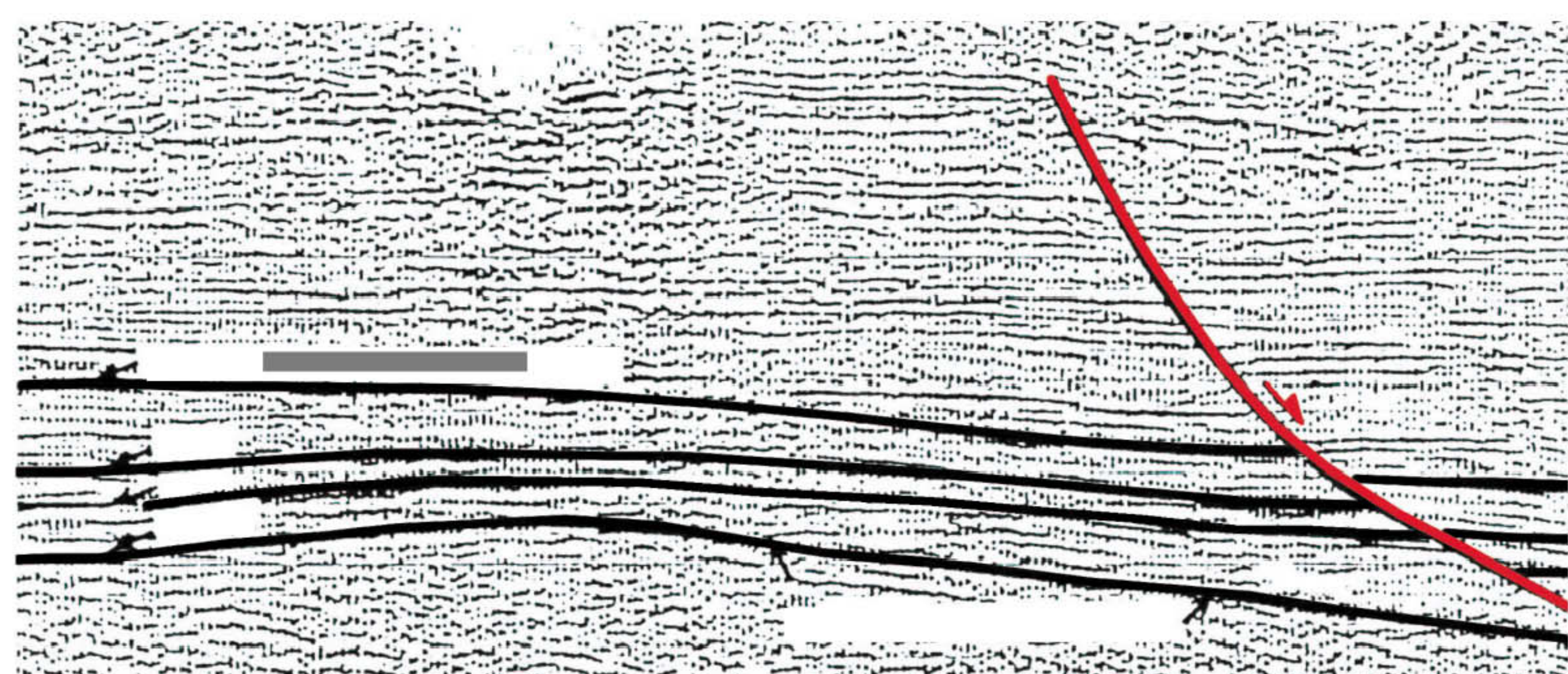
Events Chart

Oil Fields and Seeps

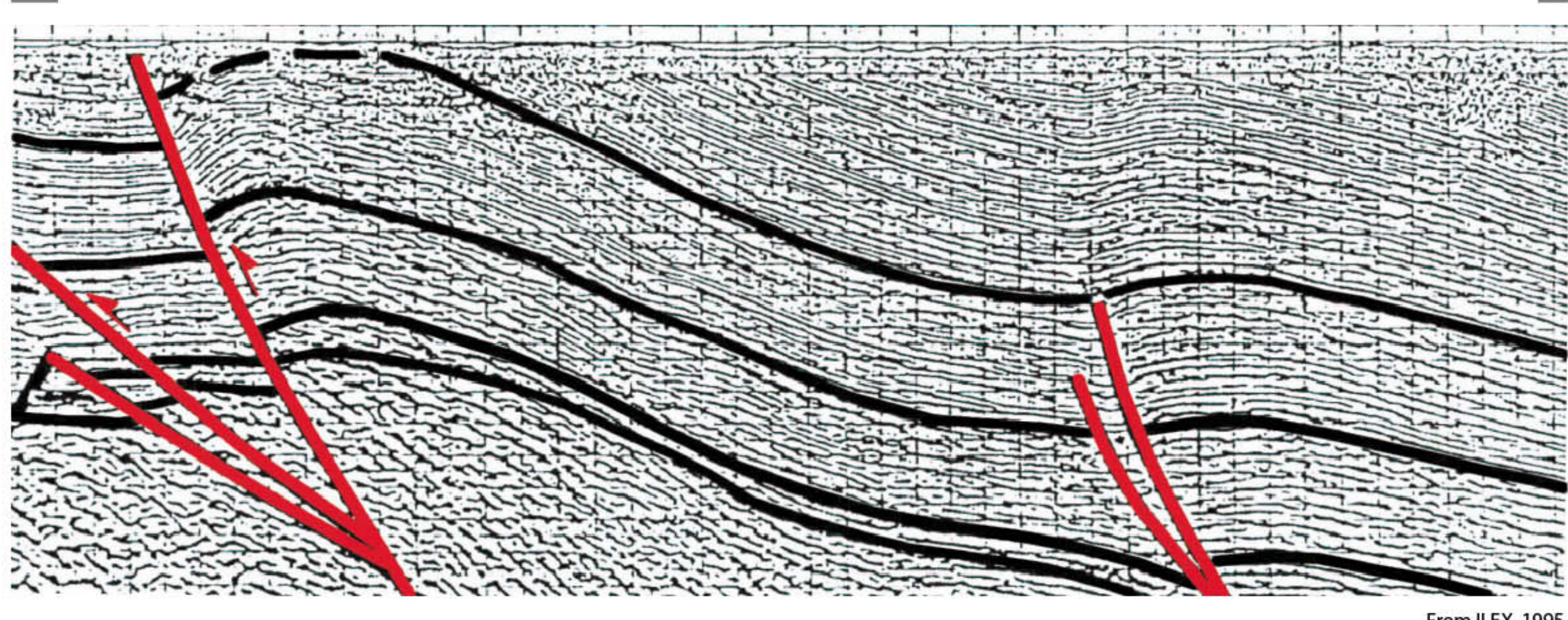


Seismic Expression

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